



June 30, 2014

Debra H. Thomas
Acting Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance
U.S. EPA Region 8
1595 Wynkoop Street
DENVER, CO 80202-1129

Re: Response to Clean Air Act Section 114 Information Request

Dear Ms. Thomas:

Deseret Generation & Transmission Co-operative ("Deseret") hereby provides the attached information in further response to the Subject Section 114 Information Request dated April 17, 2014 (the "114 Request" or "Request"). Deseret has previously provided responses to the Request, and incorporates its previous responses and objections thereto with this additional response. In addition, in conversation with representatives of Region 8, the Request has been clarified, modified, and refined and Deseret's response is intended to convey information responsive to the Request as so modified.

With respect to information that EPA continues to seek through the Request, Deseret's response includes the following specific and general objections, observations, and request:

1. Specific Objection to EPA's Request to Perform BACT-Type Analysis

By letter dated May 14, 2014, Region 8 asserted that its Section 114 data Request goes further than Deserte had previously understood (the "Historical BACT Evaluation Demand"):

"[Please] be aware that our March 26 request was not intended to be limited to information that Deseret Power already possesses . . . [S]ection 2 of our request seeks information on available NOx control technology options for Bonanza Unit 1. We fully anticipated that Deseret Power might have to develop information not already in its possession in order to adequately respond to our Clean Air Act section 114 request, such as information from consulting firms, control

Ms. Debra H. Thomas June 30, 2014 Page 2

technology vendors and industry associations, available literature on control technologies, and other means. ¹

Descret believes the scope of this request, as specifically expanded to include the Historical BACT Evaluation Demand, appears to exceed the reasonable limits of appropriate Section 114 inquiry. First, the Historical BACT Evaluation is not requested for a purpose authorized by the Clean Air Act ("CAA" or "Act").

Recognizing the limits set forth under the Clean Air Act, courts have held that a § 114 request must be (1) for a purpose authorized by the statute and (2) limited to reasonable requirements. As discussed below, EPA has not identified a purpose for this Request that falls within the defined purposes in § 114(a). In addition, § 114 specifies the types of documents and information that EPA may seek. EPA does not ask for any documents or information that falls within the specific categories of information listed in the statute. Likewise, the Request is not within the reach of any "catch-all" category because it is unreasonable both in scope and character as further described below. Under the CAA, information may be requested only with respect to "such other information as the Administrator may reasonably require." The Historical BACT Evaluation Request goes beyond any reasonable scope of permissible information request.

EPA appears to be seeking information to support a BACT analysis that it could *possibly* use in connection with a *potential future* PSD permit revision proceeding for a project that EPA itself explicitly authorized in a duly-issued PSD permit some 13 years ago—a future potential proceeding that EPA has no authority to conduct. ⁶ It appears to Deseret that EPA is attempting

² See, e.g., United States v. Tivian Labs., Inc., 589 F.2d 49, 54-55 (1st Cir. 1978).

¹ Letter from Debra H. Thomas to Kimball Rasmussen (May 14, 2014) (Attachment "A").

³ 42 U.S.C. § 7414(a). The CAA provides only three specific purposes for which EPA may require information from a source owner or operator: (1) assisting in the development of an implementation plan, emission standard, or other regulation; (2) determining whether a person is in violation of a standard or plan requirement; or (3) "carrying out any provision of" the Act. The third, "catch-all" provision does not, in Deseret's view considering relevant court precedent, justify the request where it does not appear to be specifically tailored to ongoing proceeding or undertaking authorized by the Act.

⁴ Id. § 7414(a)(1).

⁵ Id. § 7414(a)(1)(G) (emphasis added).

⁶ In the Request, EPA states that it "is planning to address potentially applicable PSD requirements that may have been triggered by Deseret's ruggedized rotor project completed in 2000." Likewise, in EPA's April 28, 2014 Draft Statement of Basis for its proposed Title V operating permit for the plant, the Agency explained that the purpose of this 114 Request is to obtain information for a future "PSD correction permitting action" in which EPA "plans to address the PSD requirements by performing a retrospective BACT analysis that should have been conducted prior to construction of the ruggedized rotor project, and proposing to issue a revised NOx emission limitation that reflects that BACT analysis EPA Region 8, Air Pollution Control, Title V Permit to Operate, Draft Permit No. V-UO-000004-00.00: Statement of Basis, Draft (Apr. 28, 2014) at 49, available at

in its demand for the Historical BACT Evaluation, to require Deseret to conduct a portion of analysis that might only be germaine were such an unauthorized proceeding to take place. Deseret has described the reasons why undertaking such a proceeding is beyond the authority delegated to EPA under the Clean Air Act. EPA is not entitled to conduct a portion of inquiry under Section 114 where the entire potential proceeding to which it might be applied – namely, a proceeding to revoke and rescind a final PSD Permit 13 years after construction was completed – is not authorized under the CAA.

Second, the Historical BACT Evaluation would impose an unreasonable burden on Deseret and is therefore not properly within the scope of Section 114 request for information.

In February of this year, EPA inquired whether Deseret, on its own initiative, might voluntarily engage one or more consultants who would essentially create a top-down BACT analysis of NOx control technology as if a final PSD Permit had never been issued for the project. Deseret declined, explaining that Deseret has not requested a modification to the PSD Permit issued by the State of Utah and reissued by EPA beginning in 1997 through 2001, and therefore, no BACT analysis is required to be prepared or presented at this time.

EPA's 114 Request is unreasonable not only because it requires information for a plainly ultra vires proceeding, but also because it is unreasonably burdensome to Deseret. The Agency is not requesting documents and information that are already within Deseret's possession or which could be collected and submitted with a reasonable amount of effort from such documents — likely the only types of documentary information EPA can reasonably request under § 114. Instead, EPA is asking Deseret to perform—for the first time—a full-scale, costly, and time-consuming retrospective BACT analysis for the Bonanza plant.

Undertaking a "retrospective" BACT Analysis to recreate what would have been the result of BACT Analysis conducted in 1997, the time immediately prior to when the Utah DAQ issued its notice of intent to approve the Rugged Rotor project, would require that Deseret undertake a highly unusual effort well outside the ordinary processes of data collection and/or analysis required in its capacity as operator of Bonanza. In order to perform this analysis, Deseret would be required to retain a consultant and develop new information that is not in the company's possession, at great expense to Deseret, for EPA's benefit. Indeed, the Agency states that it "fully anticipated that Deseret Power might have to develop information not already in its possession in order to adequately respond to [its] Clean Air Act section 114 request, such as information from consulting firms, control technology vendors and industry associations, available literature on control technologies, and other means." This demand for creating new information is all the more unreasonable in light of the fact that EPA apparently intends to use this information for an

http://www2.epa.gov/sites/production/files/2014-04/documents/deseret_04-28-14_draft_statement_of_basis_v-uo-000004-00.00.pdf.

⁷ Supra note 1.

unlawful purpose—namely, to conduct a PSD permit revision proceeding that EPA lacks any authority to undertake. Therefore, the information requested in Section 2 of EPA's 114 Request is beyond the Administrator's authority to "reasonably require."

As Deseret explained in its written comments to EPA's proposed Title V operating permit for the Bonanza plant, neither the CAA nor its implementing regulations authorize EPA to unilaterally revise a PSD permit—and particularly not to correct a purported "error" discovered by the Agency over a decade after it issued the permit and construction on the project was completed. Deseret incorporates into this letter the portions of those comments addressing EPA's lack of authority to revise a PSD permit. Indeed, EPA itself candidly acknowledges that "[t]he applicable federal PSD regulations, 40 CFR 52.21, do not include provisions for amending or revising permits." The proposed purpose, as well as the invasive and unreasonable scope of this specific portion of the Request renders it beyond the legitimate authority of Section 114.

2. Specific Objection to Section 1.H of the 114 Request

In addition, Deseret objects to Section 1.H of the Request, to the extent that this demand is seeking information related to potential future capital projects (related to NOx control) at the Bonanza plant that Deseret may have contemplated or be contemplating. As discussed above, any § 114 request must be for a permissible purpose. EPA has not indicated that it is requesting information about future capital projects at the plant in support of any rulemaking or in order to determine whether Deseret has violated any requirement under the CAA. The only apparent purpose that EPA has arguably identified for this Request—to support an unlawful PSD permit revision proceeding that EPA intends to conduct at some unspecified date in the future—is completely unrelated to any future capital projects Deseret may be contemplating at the plant, and in any event, exceeds EPA's statutory authority and cannot support a § 114 request.

Further, courts have held that it is improper for EPA to seek a "seat at [a source owner's] planning table" or to attempt to inject itself into the necessarily wide ranging discussions and back-and-forth information requests that a company must undertake in considering how and whether to undertake future capital projects, or in planning the scope, nature, and timing of any such potential project. When considering future projects, Deseret "alone may decide when and how a project goes forward (pending permit approval, as required)," and EPA is not a "partner in the planning process." EPA's demand in Section 1.H of this Request oversteps these bounds.

3. General Objections

⁸ Id. at 27.

⁹ United States v. Xcel Energy, Inc., 759 F. Supp. 2d 1106, 1115 (D. Minn. 2010).

¹⁰ Ia

In addition to those objections previously stated, and subject to the conditions expressly indicated in the responses provided to the 114 Request, the following general objections are intended to apply to, and are incorporated by reference in the response to, each and every response to the request for items set forth therein:

- 1. Desert objects to the Request to the extent it seeks privileged information and/or documents, including but not limited to, information protected from discovery pursuant to the attorney-client privilege, the work product doctrine, or any other privilege provided for by law.
- 2. Desert objects to the Request to the extent it goes beyond the requirements of §114 of the CAA and the applicable implementing regulations. Desert will respond to the Request in a manner consistent with the requirements of the CAA and applicable regulations.
- 3. Descret objects to the Request to the extent it seeks information that is unreasonably cumulative or duplicative, in EPA's possession or control, or is publicly available. In particular, to the extent that the discovery requests seek information that has been or which is being provided pursuant to previous requests for information from EPA and that was previously provided by Descret, Descret incorporates herein its responses and objections to such discovery requests.
- 4. Deserte objects to the Request to the extent it is overly broad, unduly burdensome, or imposes an obligation on Desert beyond that required by the applicable provisions of the CAA.

4. Conclusion

For the foregoing reasons, and without limiting its other objections to the 114 Request as previously stated and/or otherwise included by Deseret in this response letter, Deseret does not intend to submit any additional information in response to this Request at this time. ¹¹ Deseret respectfully requests that EPA withdraw Section 1.H and Section 2 of the Request to the extent they seek information that extends beyond the appropriate scope of §114 as Deseret has asserted.

5. Certification

With respect to information submitted as Attachment "____" hereto, and subject to the objection and other information set out in this letter, I hereby certify that I have personally examined and am familiar with the information submitted in response to the Request. Based on my inquiry of those individuals who have participated in gathering and obtaining the information provided, I believe the information to be accurate, free of material misstatement, and

¹¹ Deseret reserves the right to submit information in any future proceeding that EPA may undertake, including an (unlawful) proceeding purportedly to "revise" the plant's 2001 PSD authorization for the ruggedized rotor project.

responsive to substantial portions of the March 2014 Request, as portions of the Request were discussed between representatives of Deseret Power and EPA in telephone conversations and emails including a telephonic conference and subsequent e-mail dated May 14, 2014.

Should you have any questions or concerns please do not hesitate to contact me.

Very truly yours,

David F. Crabtree General Counsel

c. Kimball Rasmussen Mike Owens

ATTACHMENT "A"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8



1595 Wynkoop Street DENVER, CO 80202-1129 Phone 800-227-8917 http://www.epa.gov/region08

May 14, 2014

Ref: 8P-AR

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Kimball Rasmussen
President and CEO
Deseret Power Electric Cooperative
10714 South Jordan Gateway
South Jordan, Utah 80495

Re: Extension of Time to Respond to Clean Air Act Section 114 Information Request

Dear Mr. Rasmussen:

This letter is in response to a request dated April 17, 2014, from Mr. David Crabtree of Deseret Power, for additional time to respond to the U.S. EPA's Clean Air Act section 114 information request letter of March 26, 2014. The EPA's March 26 letter – which, as explained in that letter, was issued under our authority under section 114 of the Clean Air Act – requested information on operations and available NO_x controls for the Bonanza power plant. Our information request indicated that a response is required within 30 days after receipt of the request. Since Deseret Power received our request on or about March 31, 2014, a response was required on or about April 30, 2014. We appreciate Deseret's partial response letter sent via electronic mail on April 17, and the items sent under separate cover. Deseret's April 17 letter requested an additional 90 days to complete the response.

To the extent that some of the information we requested may not exist in any document or record that Deseret Power already possesses and Deseret needs to develop new information, we agree to an additional 60 days to complete the response. However, with regard to responsive information that Deseret Power does already possess (as well as information the company did possess at one time), we agree only to an additional 30 days to complete that portion of the response, as we believe that is a reasonable amount of additional time for Deseret Power to either locate and provide such information, or to determine that the information was not retained, in which case that information could be developed in the 60-day period discussed above. The 30 additional days will expire on May 30, 2014. The 60 additional days will expire on June 29, 2014. Please mark your final submittal as such.

We also want to confirm the scope of our request. Deseret's April 17 letter states that "Deseret intends to comply as fully as reasonably possible with the request insofar as it seeks information contained in documents in Deseret's possession." However, later in the letter, Deseret notes that "[i]t also appears that some of the requested information may not exist in any document or record that Deseret now possesses..." Please be aware that our March 26 request was not intended to be limited to information that Deseret Power already possesses. While we appreciate that some of the historical information may not have been retained, section 2 of our request seeks information on available NO_x control technology options for Bonanza Unit 1. We fully anticipated that Deseret Power might have to develop information not already in its possession in order to adequately respond to our Clean Air Act section 114 request, such as information from consulting firms, control technology vendors and industry associations, available literature on control technologies, and other means.

Deseret's letter also indicates that certain aspects of our information request appear ambiguous and that Deseret Power reserves the right to seek clarification. We certainly wish to avoid any ambiguity. As you may be aware, my staff have set up a conference call with Deseret staff to provide such clarification.

Finally, Deseret's letter, attachment and computer disk claim "confidential" designation for virtually all information submitted. We plan to respond to this assertion of confidentiality via separate correspondence.

Again, we appreciate your cooperation in this matter. If you have any questions, please call Mike Owens of my staff at (303) 312-6440.

Sincerely,

Debra H. Thomas

Acting Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

cc: David Crabtree, Deseret Power Eric Olsen, Deseret Power

ATTACHMENT "B"

Response to Request Item 1.C:

Subject to the objections and limitations Deseret has expressed to EPA, Deseret provides the following response to Item 1.C of the Section 114 Information Request.

In an e-mail dated May 15, 2014, EPA expanded and/or revised and clarified the request in item 1.C of the Section 114 Request. Specifically, EPA advised Deseret as follows:

"What we are seeking under item 1.C. is the maximum heat input capacity as [described] in the Title V Statement of Basis as 'the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit."

EPA further stated in its e-mail:

"Therefore, in response to item 1.C. of the information request, please report the higher of 1) the design heat input capacity of the unit, or 2) the actual as-fired heat input capacity... In addition, though we request the *hourly* heat input capacity in our information request, please report the heat input capacity that can be sustained on a steady-state basis... Finally, if the as-fired heat input capacity is higher than the design heat input capacity, and there is some question as whether to report the CEM-based heat input capacity or that calculated from coal use and characteristics, please use your judgment as to which is more accurate."

Deseret objects to this modified request for item(s) enumerated in item 1.C, because it is vague, ambiguous, and also because it seeks to characterize as either "higher" or "lower" either: (i) the design heat input capacity or (ii) the "actual as-fired heat input capacity" where those two values cannot necessarily be compared simplistically as either "higher" or "lower" than each other.

Subject to the foregoing, Deseret states as follows:

The design heat input capacity of the Unit 1 boiler is described (for years immediately prior to and after the completion of the rugged rotor project) in attachments to the letter provided as part of Deseret's application for pre-construction PSD Permit for the work associated with the rugged rotor project, a copy of which is attached hereto as Exhibit"2"²

¹. E-mail dated May 15, 2014 from Aaron Worstoll, EPA Region 8 to Eric Olsen (a copy of which is attached).

² Letter from Stan Gordon to Ursula Trueman, Director, Utah Division of Air Quality (undated) sent approximately mid to late 1997.

EPA has not defined its use of the term "actual as-fired heat input capacity" and Deseret objects to the request because the term is vague and ambiguous. The May 15, 2014 e-mail and the proposed Title V Permit SOB each note a comparison to actual "pre-project and post-project data (obtained from EPA's Air Markets Program Data [AMPD]" which historical data refer to maximum daily boiler heat input values. Deseret notes, in that context, the following:

- 1. The design heat input capacity of the boiler represents an average hourly input (expressed in mmBtu/hr) that the unit is designed to be capable of accepting over an extended period of time, based on reasonable assumed operating conditions (see item 3 below, for further explanation). Typically, it is used as an hourly average of all hours in a 12 month (annual) period (8,760 hours) to calculate a representative PTE, for example, as in the Title V permit application. See the further explanation set forth in item 5 below.
- 2. The actual heat input will vary, both above and below, the design input capacity depending on a number of factors.
- 3. The design input capacity of the boiler is representative of average sustained operating design capacity over a long averaging period of sustained operation based on, among other things, an assumed coal quality, i.e., assumed coal heat value analysis, which is set forth in data submitted to the Utah DAQ in Deseret's preconstruction PSD Application (Exhibit "2" attached hereto). The Bonanza unit is susceptible to variations in coal quality due to its primarily sole-source fuel supply from one single coal mine, as described and analyzed by UDAQ and EPA in conjunction with the 1995 BACT analysis and permit modification.
- 4. Neither the CEMS nor the Coal usage data contain heat input capacity. Both these data sets only contain the historical actual heat input into the boiler. Deseret is aware of problems associated with CEMS data which can render the resulting data inaccurate for certain purposes. Deseret has provided EPA with historical coal consumption data; Deseret will convert this data to calculate heat input from coal analysis and provide this converted heat input data to EPA.
- 5. The theoretical maximum capacity of the boiler to accommodate maximum heat input, on an actual basis, could, depending on conditions, exceed the design "sustained operating" level for the boiler. The PSD Permit, as well as the Title V Permit application list the heat input for the Unit 1 boiler as "about 4,578 mmBtu/hr" for this reason.

EXHIBIT "1"

Dave Crabtree

From:

Worstell, Aaron < Worstell. Aaron@epa.gov>

Sent:

Thursday, May 15, 2014 11:36 AM

To:

Eric Olsen

Cc:

Dave Crabtree; Rothery, Deirdre; Owens, Mike; Laumann, Sara

Subject:

Heat input capacity

Hi Eric-

During yesterday's conference call to discuss the 114 information request, Deseret requested clarification regarding item 1.C of the request which asks for "[t]he maximum hourly heat input capacity of the Unit 1 boiler between 1995 and 2014." The purpose of this email is to provide further clarification on that item.

What we are seeking under item 1.C. is the maximum heat input capacity as desribed in the Title V Statement of Basis as "the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit."

In the Statement of Basis for the draft Title V permit, referencing Utah's 1998 Modified Source Plan Review (MSPR), EPA states the following:

According to the MSPR's description of the ruggedized rotor project, "[b]ecause of the increased capacity of the Turbine Generator to handle steam flow, there will be a net increase in certain emissions resulting from an overall increase in the heat input to the boiler from 4381 MMBtu's/Hr to 4578 MMBtu's/Hr."

However, also as noted in the Statement of Basis, both the actual pre-project and post-project data (obtained from EPA's Air Markets Program Data [AMPD]) show that the heat input values given in the MSPR were substantially exceeded and do not appear to be an accurate representation of actual as-fired heat input capacity or operations at the plant. Therefore, in response to item 1.C. of the information request, please report the higher of 1) the design heat input capacity of the unit, or 2) the actual as-fired heat input capacity.

In addition, though we request the *hourly* heat input capacity in our information request, please report the heat input capacity that can be sustained on a steady-state basis.

Finally, if the as-fired heat input capacity is higher than the design heat input capacity, and there is some question as whether to report the CEM-based heat input capacity or that calculated from coal use and characteristics, please use your judgment as to which is more accurate.

Aaron J. Worstell
Environmental Engineer
U.S. Environmental Protection Agency - Region 8
Air Program - Mail Code 8P-AR
1595 Wynkoop Street
Denver, CO 80202
Phone: 303-312-6073

Phone: 303-312-6073 Fax: 303-312-6064

worstell.aaron@epa.gov

What is wanted is not the will to believe, but the wish to find out, which is the exact opposite. -Bertrand Russell

EXHIBIT "2"



801-566-1238 • Fax 801-562-6302

Ms. Ursula Trueman, Director Utah Division of Air Quality Department of Environmental Quality P.O. Box 144820 Salt Lake City, Utah 84114-4820

Attn: J Tim Blanchard

Amendment to the request for an approval order change to install a ruggedized rotor at Re:

the Bonanza Plant.

Enclosed is a copy of a revised emission summary sheet showing new hazardous air pollutants (HAPs) emission numbers. Tim Blanchard of your staff noticed that Deseret had not calculated in the emission control efficiency factors for the original HAPs numbers. Bonanza Unit I has both a baghouse and wet scrubber which remove most of the HAPs. After recalculating the HAPs, there is a net decrease of 10.84 tons below our original estimate. Along with the emissions summary sheet, we are submitting a new attachment #3 which will show the net change in all emissions.

If you have any questions on these changes please contact Howard Vickers at the plant. His number is (435) 781-5706. We appreciate working with your staff.

Plant Manager

Cc:

David Hancock Mike Goddard Howard Vickers File

Attachment #3

Net Emission Changes

Table 1. Pollutant	Pre-Change Emissions <u>TPY</u>	Post-Change Emissions TPY	Net Change TPY
CO	510.85	602.45	91.60
VOC	60.21	70.89	10.68
NO _x	10558.00	10029.83	<528.17>
SO ₂	1929.90	1968.11	38.21
PM	939.96	962.56	23.51
PM-10	911.65	925.76	13.99
HAPS	6.19	10.84	4.65
Totals	14916.76	14570.44	<346.32>
Net Emissions Decrease			<346.32>

DESERET GENERATION AND TRANSMISSION COOPERATIVE PLANT: Bonanza, Unit 1 SOURCE ID: Main Boiler FUEL: Bituminous and Subbituminous Coal (p. 1 of 3) PROCESS DATA YEAR: & MUMIXAM MAXIMUM MAXIMUM CALCULATED MAXIMUM SULFUR ASH FUEL 1997 ACTUAL **DESIGN OUTPUT** HEAT INPUT HEATRATE **PROCESS** SCC **DESIGN RATE** CONTENT CONTENT HEAT CONTENT SCC CODE (MW) (MMBTU/HR) (Btu/kWh) RATE UNITS (SCC UNITAHR) (% BY WEIGHT) (% BY WEIGHT) (MMBTU/SCC UNIT) 10100222 500 4,578 9,158 2,005,164 TON 225.00 1,000 8.00 20.00 1,700,000 ESTIMATED EMISSIONS OVERALL **ACTUAL** CONTROL EQUIPMENT CONTROL **EMISSION** EMISSIONS ACTUAL. **EFFICIENCY** FACTOR **ASH/SULFUR** ESTIMATION CONTROLLED POTENTIAL CONTROLLED EMISSIONS POLLUTANT PRIMARY SECONDARY (LBS/SCC UNIT) METHOD (TONSMEAR) (TONS/YEAR) (%) FLAG (LBS/HR) 0.00 0.60 601.55 135.00 AP-42 601.55 voc 0.00 0.07 AP-42 70.18 15.75 70.18 (PERMIT LIMIT NSPS) 1994 CEM DATA NOx Low NOx Burners 0.00 10.00 (0.50 lbs/MMBtu) 8,500.00 2,289.00 10,025.82 (Permit Limit/NSPS) PERMITTED 1994 CEM DATA 502 90.00 40.00 0.0976 lbs/MMbtu 3,400.00 686.70 1,957.04 Scrubber (CALCULATED) STACK TEST (12/27/93) (Permit Limit/NSPS) Baghouse Scrubber 180.00 (>0.030 lbs/MMBtu) 510.00 599.54 (CALCULATED) STACK TEST (12/27/93) (PM limit/AP-42) PM10 Baghouse Scrubber 99.67 180.00 (>0.0294 lbs/MMBtu) 510.00 135.00 589.52 (AIR TOXICS) (700 bs/10^12 Btu) Scrubber 0,60 0.16 0.70 Baghouse 95.00 0.0140 AIRS (AIR TOXICS) (300 lbs/10^12 Btu) AIR TOXICS Arsenic Baghouse 0.29 0.08 0.34 Scrubber 94.30 0.0060 (for bitum coal) (AIR TOXICS) (80 lbs/10^12 Btu) AIR TOXICS Beryllium 0.0016 0.01 0.00 0.01 Baghouse (for bitum coal) (AIR TOXICS) AIR TOXICS (30 lbs/10^12 Btu) Cadmium 0,06 0.02 0.07 Baghouse 0.0006 (for bitum coal) (AIR TOXICS) AIR TOXICS (700 lbs/10^12 Btu) 3.39 0.90 Chromium Baghouse 0.0140 4.00 Scrubber 71.50 (for bitum coal) (AIR TOXICS) (5 lba/10^12 Btu) AIR TOXICS Mercury Scrubber 25.00 0.0001 (for bitum coal) 0.06 0.02 0.08 (800 lbs/10^12 Btu) (AIR TOXICS) AIR TOXICS 0.77 Manganese Beghouse 78,50 0.0160 (for bitum coal) 2.92 3.45 (AIR TOXICS) (400 fbs/10*12 Btu) AIR TOXICS Nickel Scrubber 1.86 0.49 2,19 72.70 0,0080 (for bitum coal) (XATEF1) (24.34 lbs/10^12 Btu) AIR TOXICS Selenium (for bitum cost) 0.03 0.01 0.04 Baghouse 92.00 0.0005 AIR TOXICS Unknown; (18.5 lba/10^12 Btu) POM 3 Beghouse factor w/ control 0.0004 (for bitum coal) 0.31 0,08 0.37 page D-5

DESERET GENERATION AND TRANSMISSION COOPERATIVE PLANT: Bonanza, Unit 1 SOURCE ID: Main Boiler Bituminous and Subbituminous Cost (p. 1 of 3) FUEL: PROCESS DATA & MUMIXAM YEAR: MAXIMUM SULFUR ASH FUEL 1995 MAXIMUM MUMIXAM CALCULATED ACTUAL HEAT INPUT HEATRATE **PROCESS** SCC **DESIGN RATE** CONTENT CONTENT HEAT CONTENT **DESIGN OUTPUT** (% BY WEIGHT) (MMBTU/SCC UNIT) RATE UNITS (SCC UNIT/HR) (% BY WEIGHT) (MMBTUHR) (Btu/kWh) SCC CODE (kW) 10100222 500 4,381 8,762 1,900,000 TON 225,00 1.000 9.00 1,900,000 ESTIMATED EMISSIONS OVERALL ACTUAL **EMISSION EMISSIONS** ACTUAL CONTROL EQUIPMENT CONTROL **EFFICIENCY** FACTOR **ASH/SULFUR** ESTIMATION CONTROLLED POTENTIAL CONTROLLED EMISSIONS (TONS/YEAR) (LBS/HR) (TONSMEAR) FLAG METHOD POLLUTANT PRIMARY SECONDARY (LBS/SCC UNIT) 0.60 AP-42 570.00 135.00 570.00 CO 0,00 0.07 66.50 15.75 66.50 voc 0.00 AP-42 1994 CEM DATA (PERMIT LIMIT NSPS) (0.50 lbs/MMBtu) 9,500.00 2,190.50 9,500.00 0.00 10.00 NOx Low NOx Burners (Permit Limit/NSPS) PERMITTED 1994 CEM DATA 3,800.00 \$02 90,00 40.00 0.080 fbs/MMbtu 657,15 3,800.00 Scrubber (Permit LimMNSPS) STACK TEST (12/27/83) (CALCULATED) 575.66 570.00 Baghouse Scrubber 99.67 180.00 (>0.03 lbs/MMBtu) (CALCULATED) STACK TEST (12/27/93) (PM Smit/AP-42) (>0.03lbe/MMBtu) 570.00 135.00 575,66 PM10 180,00 Scrubber 99.67 Baghouse (AIR TOXICS) (700 fbs/10^12 Btu) 0.67 Baghouse Scrubber 95.00 0.0140 0.67 0.16 Lead AIR TOXICS (300 bs/10*12 Btu) (AIR TOXICS) 0.32 0.08 0.32 Arsenic Scrubber Baghouse 94.30 0.0060 (for bitum coal) (AIR TOXICS) (80 lbs/10^12 8tu) AIR TOXICS 0.00 0.01 99.30 0.0016 (for bitum coal) 0.01 Beryllium Baghouse (AIR TOXICS) (30 lbs/10^12 Btu) AIR TOXICS 0.0006 0,06 0.02 0.06 88.70 (for bitum coal) Cadmium Baghouse AIR TOXICS (AIR TOXICS) (700 lbs/10^12 8tu) 3.79 3.79 0.90 Chromium Scrubber Baghouse 71.50 0.0140 (for bitum coal) (AR TOXICS) (5 lbs/10^12 Btu) AIR TOXICS 0.0001 (for bitum coal) 0.07 0.02 0.07 25.00 Mercury Scrubber (AIR TOXICS) (800 lbe/10^12 Btu) AIR TOXICS 15.20 0.77 0.70 78,50 0.0160 (for bitum coal) Manganese Baghpuse (AIR TOXICS) (400 lbs/10^12 Btu) AIR TOXICS 0.57 7.60 0.49 Nickel Scrubber 72.70 0.0080 (for bitum coal) (XATEF1) (24.34 fbs/10^12 Btu) AIR TOXICS 0.01 0.04 0.46 Selenium Baghouse 92.00 0.0005 (for bitum coal) Unknown; (18.5 lbs/10^12 Blu) AIR TOXICS POM L 0.35 0.08 0.35 factor w/ control 0.0004 (for bitum coal) Baghouse page D-5